AMENDMENTS TO THE CLAIMS

Claims 1-47 (Previously cancelled)

48. (Original) A device for delivering fluid to a patient, comprising:

a housing defining a reservoir;

an inlet valve accessible from an exterior of the housing and connected to the reservoir;

a subcutaneous infusion cannula extending from the housing, in fluid communication with the reservoir and including a distal tip; and

a skin penetrating member movably positioned within the infusion cannula between a retracted position wherein a sharpened tip of the penetrating member is contained within the device and an extended position wherein the sharpened tip of the penetrating member extends from the distal tip of the cannula.

49. (Original) A device according to Claim 48, further comprising an adhesive layer on an outer surface of the housing adjacent the infusion cannula.

50. (Original) A device according to Claim 48, wherein the subcutaneous infusion cannula is flexible.

51. (Original) A device according to Claim 48, wherein the subcutaneous infusion cannula includes at least two lumen.

52. (Original) A device according to Claim 48, wherein the inlet valve includes a needle septum.

53. (Original) A device according to Claim 48, wherein the inlet valve includes a Luer connector.

54. (Original) A device according to Claim 48, wherein the inlet valve includes a one-way valve.

55. (Original) A device according to Claim 48, wherein an outer dimension of the skin penetrating member is greater than an inner dimension of the subcutaneous infusion cannula.

56. (Original) A device according to Claim 48, wherein the penetrating member is a needle.

57. (Original) A device according to Claim 48, wherein the penetrating member is hollow.

58. (Original) A device according to Claim 48, wherein the penetrating member is solid.

59. (Original) A device according to Claim 48, wherein the penetrating member is flexible.

60. (Original) A device according to Claim 48, wherein the penetrating member is straight.

61. (Original) A device according to Claim 48, wherein the penetrating member is curved.

62. (Original) A device according to Claim 48, wherein a length of the penetrating member is greater than a lateral dimension of the housing.

63. (Original) A device according to Claim 48, wherein a length of a path of movement of the penetrating member is greater than a lateral dimension of the housing.

64. (Original) A device according to Claim 48, wherein the skin penetrating member passes through a port in the housing into the infusion cannula.

65. (Original) A device according to Claim 48, further comprising a movable retractor extending through the housing and connected to the penetrating member.

66. (Original) A device according to Claim 65, wherein the retractor is detachably connected to the penetrating member.

67. (Original) A device according to Claim 65, wherein the retractor extends through the inlet valve.

68. (Original) A device according to Claim 65, wherein the retractor passes through a port in the housing.

69. (Original) A device according to Claim 48, further comprising a flow restricting element in the cannula.

70. (Original) A device according to Claim 69, further comprising an expandable

accumulator in fluid communication between the reservoir and the flow restrictor.

71. (Original) A device according to Claim 70, wherein accumulator comprises a compliant section of the cannula.

72. (Original) A device according to Claim 70, wherein the accumulator includes a constraint limiting the accumulator to a predetermined maximum volume.

73. (Original) A device according to Claim 69, wherein the penetrating member passes through the flow restricting element.

74. (Original) A device according to Claim 73, wherein the flow restricting element resiliently expands to receive the penetrating member.

75. (Original) A device according to Claim 48, wherein the reservoir comprises first and second portions, and wherein the first portion is connected to the infusion cannula and the second reservoir is expandable and connected to the inlet valve, and wherein the portions are arranged such that expansion of the second portion increases pressure within the first portion.

76. (Original) A device according to Claim 75, wherein the first and the second portions of the reservoir are separated by a movable plunger.

77. (Original) A device according to Claim 75, wherein the first and the second portions of the reservoir are formed of flexible membranes.

78. (Original) A device according to Claim 75, wherein the first portion of the reservoir has a fixed volume.

78. (Original) A device according to Claim 75, wherein a volume of the first portion of the reservoir is restricted by the housing of the device.

80. (Original) A device according to Claim 75, wherein the first portion of the reservoir is prefilled with medication.

81. (Original) A device according to Claim 75, wherein the first portion of the reservoir includes a fill port.

82. (New) A device for delivering fluid to a patient, comprising:

a fluid passageway including,

a proximal fluid transport tube;

a distal fluid transport tube;

a tubular expansion member coupling the fluid transport tubes;

a penetrating member positioned within the expansion member for axial movement between the fluid transport tubes, the penetrating member having a sharpened distal tip;

a dispenser for causing fluid from a reservoir to flow to the proximal fluid transport tube;

a housing containing the dispenser and the fluid passageway and including an exit port receiving the distal fluid transport tube; and a connecting member secured to the penetrating member, movable from an exterior of the housing, and arranged such that movement of the connecting member causes the distal tip of the penetrating member to move towards the distal fluid transport tube to an extended position or away from the distal fluid transport tube to a retracted position.

83. (New) A device according to Claim 82, wherein the penetrating member and the fluid passageway are sized to allow fluid flow between the passageway and the penetrating member.

84. (New) A device according to Claim 82, wherein an outside diameter of the penetrating member is substantially equal to an inside diameter of the distal fluid transport tube.

85. (New) A device according to Claim 82, wherein at least a portion of an outside diameter of the penetrating member is greater than an inside diameter of the distal fluid transport tube.

86. (New) A device according to Claim 82, wherein the proximal fluid transport tube is attached to both the connecting member and the penetrating member.

87. (New) A device according to Claim 82, wherein the expansion member is attached to both the connecting member and the penetrating member.

88. (New) A device according to Claim 82, further comprising a lubricant on or near the outside surface of the penetrating member.

89. (New) A device according to Claim 82, further comprising a therapeutic agent on a surface of the distal fluid transport tube.

90. (New) A device according to Claim 89, wherein the therapeutic agent includes at least one of an antibiotic agent, an analgesic agent, and a topical anesthetic.

91. (New) A device according to Claim 82, wherein the distal fluid transport tube is flexible.

92. (New) A device according to Claim 82, wherein the distal fluid transport tube is rigid.

93. (New) A device according to Claim 82, wherein a side wall of the distal fluid transport tube includes at least one opening adjacent a distal tip of the distal fluid transport tube.

94. (New) A device according to Claim 93, wherein the distal tip of the distal fluid transport tube is closed.

95. (New) A device according to Claim 82, wherein the device is attachable to a patient's skin, and a direction of movement of the connecting member is substantially perpendicular to a surface of the skin.

96. (New) A device according to Claim 82, wherein movement of the connecting member in a first direction causes the penetrating member to move towards a distal end of the distal fluid transport tube and movement of the connecting member in a second direction causes the penetrating member to move away from the distal end of the distal fluid transport tube, and wherein the connecting member is biased in the first direction.

97. (New) A device according to Claim 82, wherein the connecting member includes a control knob extending through the housing, and the housing includes reference markings

adjacent the control knob to provided a visual indication of the position of the penetrating member.

98. (New) A device according to Claim 82, further comprising a reservoir, and the dispenser controls fluid flow from the reservoir to the proximal fluid transport tube, and further comprising a fill port connected to the reservoir.